DOCUMENT RESUME

ED 367 005 CS 508 460

AUTHOR	Vrazel, Ray, Jr.; Hoffman, Henry
TITLE	The Use of Metaphor: Towards Rehabilitating Oral/Written Skills of Entry-Level Theatre Students.
INSTITUTION	National Arts Education Research Center, New York, NY.
SPONS AGENCY	Department of Education, Washington, DC.; National Endowment for the Arts, Washington, D.C.
PUB DATE	91
NOTE	36p.
AVAILABLE FROM	National Arts Education Research Center/New York University, 32 Washington Place, Room 52, New York, NY 10003 ($4).
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Communication Research; High Schools; High School Students; *Metaphors; Public Schools; *Speech Communication; *Theater Arts; Units of Study; Writing Improvement; Writing Research; *Writing Skills
IDENTIFIERS	*Drama in Education; New Orleans Public Schools LA

ABSTRACT

A study documented an investigation into the use of selected theater technologies to enhance the oral/written communication skills of entry-level theater students at New Orleans Center for Creative Arts, a public high school for the performing arts. The Paradigm, a critical tool developed by Syd Field, and the students' application of the conceptual scheme in interpreting a theatrical event were also examined. For each of the 8 weeks, a series of theater games, processes, improvisations, and dramatic activities cohering around themes were created as multiple interdependent fluctuations. Pre-test results, supported by the oral/written evidence of the first two lessons, led to the evolution of three core groups of students: Players (who readily used metaphor), Oscillators (who vacillated between metaphor and descriptive), and Spectators (who could not gain control of the process of generating and organizing their writing). The written material from each week was computerized and collated. Results indicated that: (1) theater technologies rehabilitated the oral/written communication skills of a majority of the students; (2) students' writing improved during the latter half of the study; and (3) the use of The Paradigm contributed to students' knowledge and comprehension of the dramatic event as evidenced in posttest papers. Findings provide empirical support for theater technologies as planning processes involved in writing and for theories related to symbolic functioning in general. (Contains 38 references and 37 notes.) (RS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

CS

ED 367 005

THE USE OF METAPHOR: TOWARDS REHABILITATING ORAL/WRITTEN SKILLS OF ENTRY-LEVEL THEATRE STUDENTS

Ray Vrazel, Jr. and Henry Hoffman
New Orleans Center for the Creative Arts
New Orleans, Louisiana

New York University

Sponsored by the National Endowment for the Arts and the United States Department of Education

CS508460

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Copyright @ 1991 by the National Arts Education Research Center at New York University. Requested in 1993.

New York University
School of Education, Health, Nursing and Arts Professions
32 Washington Place
Suite 52
New York, N.Y. 10003
(212) 9985060

Table of Contents

Introductions i
Acknowledgments v

INTRODUCTION 1
Statement of Investigation 1
Need for Study 3
Related Literature 4
Description of Setting 7

PLAN OF ACTION 10
Documentation 10
Methodology 12
Evaluation 17
Future Research 26

NOTES & BIBLIOGRAPHY 27

INTRODUCTION

"True drama for discovery is not about ends; it is about journeys and not knowing how the journeys may end."

--Dorothy Heathcote[2]

Statement of Topic of Investigation

This study was an investigation into the use of theatre technologies as a tool for strengthening: (1) the oral and written communication skills of entry-level theatre students at NOCCA and (2) the students' attitudes about themselves and about theatre arts. Against the backdrop of an increasingly computerized, cost-conscious synthetic society, the use of live, personalized activities that can produce positive dimensions of growth in human beings appears to be increasingly essential.

Therefore, meeting every Friday morning, from 8:15-10:40 a.m., for eight weeks (February 16-April 27, 1990), the researchers and a group of 30 students explored selected theatre technologies. The subjects consisted of entry-level students of stratified random allocation. They were an homogeneous group of intercity children--one-third Black-- a majority of which came from the two top high schools in the city: Franklin and McMain. As such, most of these 30 students (24 female, 6 male) come from upper middle-class income homes. They attend NOCCA on a part-time basis in order to supplement a relatively good standard of education, but not in the arts. Finally, before the study began, the researchers determined that a majority of the students had no other art forms in their lives, other than television and the movies. Only two of the students took piano lessons and one was taking singing lessons.

The theatre technologies were games, improvisations, movement/ vocal exercises, and storytelling techniques. These structured drama activities coalesced around themes, which arose from not only what the researchers perceived to be of interest to the students, but largely from dramatic literature (not

exclusively Western). Much of it rested in the historical antecedents of the rise of ecological/Feminism and the evolvement of a multi-cultural, multi-ethnic environment. These tenets are the bedrock of the Theatre Department at NOCCA.

The thematic explorations chosen were fantasy, mystery, friendship, the past and the future (in two parts). To assist the researchers in selecting and modifying ideas within these units, each theme was divided into: (1) introduction/goals; (2) games; (3) dramatic activities; and (4) improvisations. Within these divisions, a variety of genre was used, such as poetry, folktale, myth, novel and script. The story structures found in these literary forms suggested ideas for activity, that would engage the imagination of the students.

Working within a theme, i.e., a different inspirational focus, allowed the students opportunities to connect their own emotions and values to it. As such, the activities sought to promote communication skills, creative problem-solving, cooperative interaction and a sense of individual creativity. Therefore, the resultant expectorated living material would find its way into the writing activities and influence the students' oral presentation.

On another level, however, the researchers wanted to observe the students' oral/written preferences specifically about the theatre. The intention was to find a way to expand their ability to critically evaluate the theatrical event, be it theatre, film or TUXEDOS. As such, the researchers employed *The Paradigm*, a critical tool, developed by writer Syd Field in his book SCREENPLAY.[3] In addition to happily playing within the selected theatre technologies, the students would see, each week or so, first-rate examples of both live theatre and film scenes.

After the viewing of this material, they would learn to carefully apply The Paradigm to the narrative. The Paradigm creates for the viewer a specific mode of analysis in unlocking dramatic structure. The viewer identifies the beginning and the ending of the event, discussing the relationship between the two. Then, plot point one is determined; it occurs twenty minutes into, say, a two-hour form, and sends the story into reversal. Plot point two happens twenty minutes before the story ends and also creates a reversal. The relationship between the two plot points is then discussed. The final term to be identified is midpoint, the confrontation, which serves as the peak of the pyramid. The first half of the story

is the setup for the second half, which moves the narrative into its depth. When the pyramid of five interlocking terms--beginning, ending, plot point one, plot point two, and midpoint--is determined, it is then juggled in a series of ratios, revealing structure.

The students were living through their experiences, prompted by the theatre technologies, which would help them to develop personal expressiveness and confidence in their creative selves before applying and adapting these attributes to their writing. Moreover, they were also learning to apply a conceptual scheme to their theatre/film viewing.

Need for Study/Research

Many of the students at NOCCA enter the program with highly developed oral/written communication skills. Many others--also talented in the theatre --do not demonstrate the same level of skills.. In the case of the latter group of students, their achievements in the academic portion of the program (play reading, theatre history, dramatic literature, critical theory) are not sufficient to satisfy the required "B" average which is needed to remain in the program. Of particular difficulty is the writing of critiques for theatrical events.

As a result of these academic shortcomings, NOCCA theatre loses about one-third of its first-level students each year. Sadly, these students will not have the advantage of NOCCA's intensified drama/theatre training. Finally, their talents may or may not receive deserved recognition, stimulation and development back at their sending schools.

Because NOCCA is currently not in a position (nor of a mind) to offer remedial courses in the academics to the students, another solution had to be sought to keep all talented students in the theatre training. One way to achieve this goal was to devise activities that serve a dual purpose: to not only develop basic drama/theatre skills, including the facilitation of understanding theatre concepts (plot, character, metaphor, etc.), but also to improve oral and written communication skills. By playing off of the strong interest and motivation already demonstrated in their drama/ theatre training, the researchers could, perhaps, create a focused module which would inspire and align the students to communicate more fluently about theatre and about life.

Incidentally, while this investigation involved students in an arts magnet high school, the approach may inform the speech and language arts teachers and learners in the regular sending schools. This approach, therefore, intends to empower the teaching/learning process all the way around.

Literature that Supports/Illuminates

Empirical research in the area of using theatre activities to facilitate oral/written skills has generally focused on theatre activities, as in studies made by Hoetke · 1971,[4] Sloman,[5] and Goldberg.[6] The findings of these studies support the general contention that participation in theatre/ dramatic activities contributes positively to improvement in academic achievement and student attitudes toward themselves.

Yet, these existing studies provided a limited foundation of support for the systematic use of theatre/dramatic activities to free up the students' unconscious material in order to translate it specifically to oral/written skills. Although there have been a variety of studies of students as participants in dramatic activities, few have examined the impact of these activities on the convergence of imaginative play skills and language. All of the studies seem to agree, though, that where children are taught to play, language development follows. The bodymind experience of the symbolic play process, however, is the missing link to improved literacy.

Looking for the first maps of this unknown and uncharted territory, the researchers explored a cartography of consciousness. The researchers started with Viola Spolin's teaching that human beings are fully alive only when they are at play,[7] and completed the spectrum of consciousness with the scientific investigation of Fritjof Capra's THE TAO OF PHYSICS.[8] Between Spolin and Capra, then, lay a length and depth of reading, which would challenge the researchers to find the relationship between play and oral/written literacy.

Spolin taught the researchers essentials in mobilizing blocked energy and transforming feelings into experiences. Consider: most young high school students live in a Cartesian-Newtonian mechanistic framework whose principal context is that everyday reality is perceived as "separate" from themselves and

linear in movement. In Spolin's highly transpersonal mode, however, these usual limitations of sensory perception and of logical reasoning often shift from regarding solid objects as things or substances to receiving them as fluid energy patterns. Spolin was a useful guide in expanding the students' consciousness beyond conventional boundaries and, correspondingly, into a larger sense of identity.

After Spolin, Paul Baker in his INTEGRATION OF ABILITIES,[9] closed the boundaries between the visual arts and performance, as well as the relation between representation and presence. As such, his book, describing non- rational modes of cognition, inspired many of the activities involving the visual arts in the 8-week module.

Both Spolin and Baker stress the elimination of the roles of teacher and student. Playing on peer age helps the students get beyond the need for approval or disapproval, which distracts them from experiencing themselves and solving the problem. Therefore, the researchers turned to psychologist R.D. Laing's THE POLITICS OF EXPERIENCE,[10] in which the author concentrates on the individual embedded in a network of multiple relationships. Moreover, Laing says there is a resonance between the teacher and the student that initiates a healing process. To illustrate his point, Laing tells a remarkable story:

> A man came to see me and told me about some problems related to his job and his family situation. The man told me a story that seemed to have no outstanding features--married, two children, some office job; there was really nothing unusual in his life, no drama, no complex interplay of special circumstances. I listened to him. I asked him a few questions; and at the end the man burst into tears and said: 'For the first time, I have felt like a human being.' After that, it was a handshake, and that was it. But there had been an authentic meeting between us....[11]

When the researchers began this study, we sought to move this aforementioned sense of authenticity between teacher/student into an arena where we could use theatre technologies to enhance the oral/ written communication skills of entry-level NOCCA theatre students. In addition, the researchers wanted to enroll them in a conceptual scheme by which the students could harness their ability to evaluate a theatrical event. Few studies have examined students' participation

as an audience for theatrical production. As such, the researchers chose, as our model, The Paradigm, as developed by Syd Field.

The term "paradigm" derives from the Greek paradeigma which means "pattern." For Field, then, paradigm, as applied to unlocking the mysteries of structure, means the totality, perceptions and values that form a particular vision of reality, a vision that is the basis of the way the individual sees himself. Field goes on to define his Paradigm as an open system, whereby the student interacts with the theatrical event creating an exchange, a give-and-take between them, recognizing the exciting adventure of conjunction in the theatre event. While everything is always there from the beginning and also at the end, implies Field, there is also a process of evolving, an eventuating synthesis of what we see, looking at things from the outside with what we can know from within.

Spolin, Baker and Laing taught the researchers that "play" is a process for releasing intelligence, which can be blended into the creative writing and oral presentation of the students. Furthermore, in contrast to more traditional approaches in stimulating writing, these three writers encouraged the researchers to be willing to support a student's venture into unknown territory, so that when the student sits down to write or speak about the experience, there could be revealed a relationship between the student's language behaviors paralleling a simultaneous play behavior skill. As such, his/her writing and oral expression would grow from the experience of the total organism, not just from the mind, which Descartes separated from the body. Spolin, Baker and Laing urged the researchers to help the students leave their heads outside the arena and be willing to participate in totem.

In creating, therefore, a fundamental dynamic tension between the student's normal functioning in the everyday world and perceiving reality exclusively in the transpersonal mode, the researchers, strengthened by Spolin, Baker and Laing, were looking to create a space for the student to manifest an interface "noise" between the two modes of consciousness. This creative hubbub, so to speak, would become the stuff of the writing. The student would then, perhaps, recognize the limitations of ordinary language in describing the importance of these intuitive, nonrational discoveries and submit his/her writing and oral expression to the role of paradox and the mode of metaphor.

Now, as the researchers moved into the middle register of the module, evolving

the gravitas themes of Friendship, the Past, and the Future, which were to be the solar plexus of our efforts, the researchers scouted for the construction of theatre technologies which tapped into the students' connections between spirituality and ecology. Ecological awareness, at the deepest level, is the intuitive awareness of the oneness of all life, the interdependence and its multiple manifestations and its cycles of change and transformation. Therefore, the researchers turned to the writings of the physicists Stanislav Grof in his REALMS OF THE HUMAN UNCONSCIOUS[12] and Fritjof Capra in his THE TAO OF PHYSICS. Both Grof and Capra are eloquent spokespersons of a new consciousness that identifies paradigm shifts in science, psychology, social studies and philosophy. They inspired the researchers to create games and writing activities that stressed a mode of consciousness that links all people to the cosmos. Moreover, in the final weeks of our study, the researchers emphasized that, indeed, history is at a place, their place, so to speak, where we must all embrace a world that works for everyone. These students, finally, are the ones who must now nurture new ecological visions and apply them to current social, economic and environmental problems.

Description of Setting

NOCCA is a professional arts training center within the New Orleans Public Schools. It is open through audition to all students in the metropolitan area. Although most of NOCCA's students attend local public schools, students from private and parochial schools also attend NOCCA part-time each day and take required courses at their other sending schools. Therefore, NOCCA is not so much a school as a center which serves as a satellite of the students' regular schools.

Coursework at NOCCA counts toward high school graduation. The curriculum is designed to prepare students to follow a path toward professional careers involving any of NOCCA's five arts disciplines: Dance, Music, Theatre, Visual Arts and Writing. These programs of study are professionally orientations, highly structured and academically rigorous. Commitment to serious study is tested at NOCCA, so that students can experience now what will be expected of them in professional arts careers. Realistic career preparation is the goal. Enrollment at NOCCA is therefore recommended for at least three years.

Established in 1974, NOCCA occupies the old LaSalle Elementary school building, built in 1901 and located in the Audubon/University section of uptown New Orleans. In addition to NOCCA's regular instructional program, the building serves as a center for many significant instructional arts activities --locally, regionally and nationally. For example, NOCCA is a founding member of the international Network of Performing & Visual Arts Schools.

Faculty members are practicing professionals in their respective arts fields. In line with the historical master-apprentice tradition, this professionally active faculty of artist-teachers is the foundation of NOCCA's intensive curriculum. Also, arts career counseling is an on-going part of the instructional process, and NOCCA's Visiting Artists program ensures students' contact with a wide range of professional artists.

Primarily high school level, students are encouraged to spend a minimum of three years at NOCCA in order to take full advantage of the curriculum. Some students spend more than three years at NOCCA. Dance instruction begins as early as the fourth grade in NOCCA's After-School Dance program.

Fortunately, NOCCA's program attracts a student body that represents very well the multi-cultural diversity of the city. About 40% of the students are black, and there is a strong harmony between the races, since the arts automatically promote artistic and human understanding. In the theatre department, for example, it is the policy to interracially cast all activities. Through association and working together in a common educational environment, which is infused with multi-cultural literature and philosophy , the students begin to see themselves in harmony and really involved in theatre.

There are, of course, some demands and constraints that restrict the researchers' effectiveness. The community of New Orleans, which numbers 1.6 million people, does not have a major L.O.R.T Equity theatre. Therefore, the theatre students are generally isolated from experiencing first-rate exemplary actors and productions of high excellence. To be sure, having such a standard would allow the students to form principles about the acting art. Then, too, the work of a professional ensemble would both endorse and validate the work of the students by giving them a vision of employment possibility.

Moreover, the researchers are inhibited by a lack of quality facilities in which to teach and learn. The NOCCA building does not have a theatre plant, so the

students perform in spaces that are essentially renegade. And, at present, due to little support from the community, there are no plans for the construction of just such a facility.

Some school administrators in New Orleans, as well as an indifferent public, have a narrow definition of what "basic education" is and therefore regard a study of the arts as outside the mainstream of life. Again, a major year-round theatre company that would have a national profile would validate much of our curriculum in Theatre to these basically uninformed constituencies.

PLAN OF ACTION

"What patterns connects the crab to the lobster and the orchid to the primrose and all four of them to me? and me to you?
–Gregory Bateson[13]

Documentation

This study documents an investigation into the use of selected theatre technologies in order to enhance the oral/written communication skills of entry -level theatre students at NOCCA, a high school for the performing arts. This study also examined The Paradigm, a critical tool developed by writer Syd Field, and the students' application of this conceptual scheme in interpreting a theatrical event.

A pre-test, using a one-way analysis of varianc, in order to test initial group equivalency, determined a set of three core groups, unknown to the students, in which to follow throughout the study. Means and standard deviations were computed for all three groups each week, and recorded in our journals for analysis of results over the eight weeks. The weekly means of each group were compared according to the dependent variables: organization, ideas, style, context and, of course, the protracted use of metaphor. These repeated measures analysis of variance procedures were used to test the hypothesis that there was a difference in the quality of the writing when students participated in dramatic activities.

The outline of objectives and expectancies for this study suggested to the researchers that oral/written skills be taught on a progressive basis, beginning with improvisational experiences at the first level of participation, developing through a collective playmaking stage, and culminating in a writing activity at a specialized level. A post-test was also administered to determine if the skills studied in the module had, indeed, been absorbed.

Each week, a series of theatre games, processes, improvisations and dramatic activities cohering around <u>themes</u> were created as **multiple interdependent fluctuations**. Contrary to traditional approaches, which are mostly limited to verbal exchanges, the researchers encouraged nonverbal expression and

emphasized direct experience involving the total organism. As such, the researchers supported the student's venture into unknown territory. We sought for them to not only convey information directly and cleanly without "anything on it," but also to create, through the use of the theatre technologies, experiences as well. The technologies trouble-shooted below the surface of persona and stimulated human experience, the basic source of energy and creativity in all art -tasks. This expectorated, living material found its way into their oral/written communication skills. Finally, the researchers provided a supportive, permissive play space where the students' experiences were allowed to unfold.

In one way, the researchers harnessed this study to the methodology of conventional science, in which data are gathered by observation and measurement and are then interconnected with the help of conceptual models that are expressed, whenever possible, in a kind of mathematical language. Such quantification is a crucial criterion of the scientific approach. In this study, however, the researchers discovered that the scientific overlay was not enough for understanding the nature of consciousness and would not be able to deal with any qualities or values. As such, the researchers sought, if you will, a true science of consciousness which would deal with qualities rather than quantities and would be based on shared experience and less on quantitatively verifiable measurements. On the other hand, the conceptual models which interconnect with the data, were logically consistent and included quantitative elements. Whenever appropriate, our science, so to speak, quantified its statements, but also included reference to qualities and values based on human experience.

Moreover, the researchers wanted to overcome the constraints of the highly mechanistic Newtonian/Cartesian mode, which dominates educational systems throughout the country and care impede the desire to write or speak in metaphor. For example, several empirical studies investigating the effect of visual/aural stimuli upon writing suggest that the possibility of using one symbolic form to enhance another offer an exciting avenue to language development. Writing quality has been enhanced by planning activities involving manipulative art experiences (Hudgins 1983),[14] music and guided imagery (Mahoney 1982),[15] and film and illustrations (Gozemba 1975).[16] These studies suggest that it may be advantageous to plan in one mode and express in

another. If students are free to use different forms of communication to explore meaning, they may gain an understanding of the unique strengths and weaknesses of writing. These ideas are apparently rarely practiced, however, as Henry Gardner in his ART, MIND AND BRAIN (1981) decries the fact that schools cultivate linguistic and logical-mathematical symbolic forms almost to the exclusion of all else.[17] Moreover, E.W. Eisner coined the phrase "sensory illiteracy" to describe the way in which schools neglect to allow their students to express meaning through sensory channels of representation. Such channels, Eisner suggests, are the "real basics," providing the stored sensory experiences which will later be the foundation for writing.[18] For if students fail to develop their own mental representations of kinesthetic, auditory and visual experience through personal symbols, they will have an inadequate conceptual base for the symbol system most prized by our culture--writing. Seen in this way, the use of multiple modes of representation--in our case, theatre technologies--does not demean the power of the written word, rather it may provide strength and support in the form of increased flexibility of thought.

Therefore, the researchers sought to bring the mind/body into creative collaboration by mapping out a context (theme) whereby the students would advance sure-fire responses at their deepest and most significant level. We were cultiviting mental/physical resonance at the expense of intellectualism.

Finally, one of the diseases promoted by the Newtonian/Cartesian framework is its control of the individual, thereby creating stress, which, in turn, blocks arteries of expression. Therefore, the researchers sought to document not only the harmony of mind/body facilitating a relaxed (but charged) creative expression, but also to dissolve the role of the teacher as authority figure, a throwback to an 'old space' patriarchal context. Instead, the teacher, after Viola Spolin, would conduct himself as a facilitator, sharing his techniques as an adventure, not telling the student what-to-do or how to end-up. Teaching should be a matter of communicating experience, not just a matter of imparting objective information.

Methodology

At the outset, the researchers defined the fundamental role of **metaphor** as the central focus of this eight-week study. To illustrate this point, the researchers

wrote down the following two syllogisms:

Men die.	Men die.
Socrates is a man.	Grass dies.
Socrates will die.	Men are grass.

The second syllogism is not valid in the world of the Newtonian/Cartesian mode; its validity is of a very different kind. It is metaphor and is found in the language of poets. The first syllogism, on the other hand, is concerned with a type of classification that establishes class membership by identification of subjects ("Socrates is a man"), whereas the second syllogism does so by identifying predicates ("Men die--Grass dies"). In other words, the first syllogism identifies items, while the second one identifies patterns. And this is why metaphor is the language of nature. In this way, Metaphor expresses structural similarity or, better still, similarity of organization. Again, the researchers stressed its centrality in our work. We were looking, after Gregory Bateson, for "the pattern that connects."[19]

From the pre-test and further supported by the oral/written evidence of the first two Lessons (Fantasy & Mystery), the researchers evolved the following three core groups in which to shadow during the course of the module: Players, Oscillators and Spectators. The Players readily used metaphor; the Oscillators vacillated between metaphor and descriptive; and the Spectators could not gain control of the process of generating and organizing their writing. To test the reliability of this core group model, the researchers independently scored, upon the completion of the eight-week study, a batch of 20 papers selected at random from the entire sample. Inter-rater reliability was predicted using intracore correlation coefficient calculated independently for each attribute of the metaphor/ vacillation/non-generative scale. The resulting intra-core correlations ranged from 95% to a 100%. In addition to the predicted inter-rater reliability, an estimate of the consistency of rating over time was calculated by correlating the ratings of the samples used for prediction with the second rating of the same papers during the actual rating. Again, the researchers scored high, indicating that the agreement among rated was stable over the eight weeks.

The Players submitted their creative work almost immediately to the world of

metaphor. In this early writing, they grew fond of mixing factual statements with poetic allusions. Player Albert Walker wrote at the beginning:

> He was a man about the size of Raymond Burr
> and Orson Welles. He was wearing red and blue
> 3-D glasses, a suede smoking jacket polyester pants.[20]

In a definition of "friendship," Player Nicolle Tournillon weaved the following:

> Friendship is being loving loyal and respectful
> to another and in return is given survival value
> for themselves and to one another.21

Moreover, they demonstrated in the technologies principles of self-organization, which can be identified as mental processes. This kind of consciousness does not hold itself as a property of material patterns. On the contrary, self-organizing consciousness knows itself to be a property of living systems of a certain complexity. This complexity therefore regards the universe as a whole. Consider Player Elizabeth Young's response to traveling back into time, which was part of the Lesson on The Past:

> Having done this, I believe I will have found my
> raison d'etre, my reason for living, and accept
> whatever is to come after the death of my body,
> because I will have fulfilled my aching need for
> truth.[22]

Now, the researchers sought to document this universal dynamic of self-organization as that of the cosmic mind. The researchers recognize that this is, more or less, mystical, and there may be several leaps in this argument. Still, this principle of self-organization attributable to this core group provided a meaningful criterion for identifying its particularity. All of the aforementioned Players who jumped out, as it were, ahead of the pack, consistently demonstrating quality, energized writing throughout the eight weeks. What was most interesting to the researchers was the transition of participants from the other two core groups moving into this optimum achieving group. Incidentally, almost all of the Players came from Franklin High, a sending school that looms large in excellence. In a way, then, the Players were predisposed toward meeting the challenge of inducing metaphor.

The Oscillators straddled both their world and the fringe of the Players, but were often found clinging to the descriptive as opposed to the depictive, unable at times to move beyond the ken of language into their own personal experiences and individual presentations. Oscillator Alicia Kaigler wrote about Friendship:

> My Mom and I became friends, well real close
> friends because for many years in my life I was
> always looking for a best friend. I never knew sitting
> next to me, she was there....I have a great respect fo her.
> Also, I'd never curse her out, call her a name,
> because I love her.[23]

In the technologies, this Oscillator responded directly to the experience, but in the writing chose to describe her feelings as opposed to depicting them, i.e., using language to share experience. By contrast, consider the in-depth sharing that Player Elizabeth Young demonstrates in the same assignment:

> There are only two things that I must do before
> my death: discover a religion and a God that
> will support and believe in me, and to give back
> to my mother in her old age all the love and
> sacrifice that she gave to me...
> I should make for her dying in peace and fulfillment,
> and to provide for my living in constant
> serenity and realization.[24]

Lastly, the Spectators were a short, unique group who, though inspired, could not get beyond rudimentary description into identifying predicates. In their participation in the theatre technologies, it was some time before they jelled with the games, and they continued throughout the study to find the processes difficult. Perhaps, the Spectator core group needed time to develop confidence and familiarity with the techniques before they could successfully use them as a planning activity for creative, expressive writing.

The theatre technologies used during this study tended to concentrate upon paired improvisations as a means of developing ideas for writing. An alternative which merits further investigation for the Spectators is a larger use of whole group drama in which students write upon individual topics within the activity

developed by the entire class. Spectator Mary McConkey wrote on The Past:

> I would want to go back to the Civil War, because
> I have always felt that is where I belong.
> I am a person of a wrong generation. I dislike the
> ways of the world....I love the way people are proud
> of their heritage.[25]

In the technologies, she responded with "seriousness," but could not access personal data and translate it into bold, exciting scary choices. She clung, therefore, to linear modes of cognition, even when deliberately paired with a Player.

The written material from each week was computerized and collated, so that the researchers could study the week-by-week performance of each student within the core groups. As such, we could create groupings and pairings within the technologies and perhaps facilitate a changeover from the bottom two groups. The researchers could also examine how the Players remained at optimum and could their collective fire catch the other two groups. How could we showcase their strengths in such a way as to empower the other two core groups?

The pre-test also consisted of a detailed explanation of The Paradigm with prodigious examples of its use as a successful critical tool in evaluating a theatrical form. The students then applied The Paradigm to a Charlie Chaplin short film THE IMMIGRANT(1914) and to a "live" theatre scene--Richard III's seduction of Lady Anne from Shakespeare's play. This was performed by Henry Hoffman, a researcher and a seasoned professional actor, with Gemma Denmark, an advanced NOCCA theatre student. After the writing was committed, the group discussed the differences and similarities between the two mediums. Many of the students expressed an affection for the "complexity" of the scene, as opposed to the "flatness" of the film.

The researchers then visualized the whole of the next eight weeks. In a coda, we spoke of heightening their consciousness of metaphor, learning to meet an artwork half-way. Moreover, "consciousness" of metaphor is a property of mind characterized by self-awareness. In a sense, we were addressing our remarks to the students' collective unconscious in order to quiet any anxiety. More importantly, the researchers sought to arouse and fulfill their expectations.

At the post-test, the students applied The Paradigm to the ecologically-

informed film KOYAANISQATSI, which brilliantly depicts, the evolvement of the planet, using no dialogue but only images supported by Philip Glass's electronic subscore, ending with an apocryphal vision. The film happily brought the ecological overlay to a summation and was an inspiration for the students to bring together all their thoughts on the previous eight weeks.

Upon completion of the eight-week module, the students took home a detailed questionnaire to be completed by their parents, who would provide further evidence to the researchers of any changes in the oral/written skills of their children.

Evaluation (4 parts)

- Hoffman
- Vrazel
- Other Researchers
- Pre-post Test Analysis

Henry Hoffman

The study discovered that the theatre technologies rehabilitated the oral/written communication skills of a majority of our students who are often caught in the grip of the mechanistic linear mode. There were three sources of content validation for the researchers to use. First, since both researchers read voraciously, always keeping one eye on a review of recent literature, we could ensure that the writing by the students exhibited qualities essential to good writing. Second, all the writing samples were collected weekly and analyzed to ensure an accurate reflection of the range of writing elicited during the study. Finally, a questionnaire for the parents sent home via the students, strongly evidenced the improvement of 90% of the students cited. The researchers constructed their evaluation inductively, from actual samples of the writing, while the parents' responses were deductive. The parents pinpointed for the researchers that the students' impulses came into play and translated into their expressivity on a daily basis. By and large, then, the students met the objective of the research by shifting from a reductionist view of their lives into one that was holistic and ecological.

Indeed, the researchers carefully prepared and planned for this shift. From the third Lesson on (Friendship), the Lessons rested in an eco-feminist framework. As such, the researchers, from this point on, promoted a synthesis

between masculine and feminine values, to which the students heartily responded. We pointed up that the values and attitudes that are favored and invested with political power are typical masculine values--competition, domination, expansion, etc--while those neglected and often despised --cooperation, nurturing, humility, peacefulness--are designated as female.

The researchers noted a general improvement in the writing produced during the latter half of the study. At the beginning of the study, the students were often unclear about the purpose of the theatre technologies, and tended to regard them simply as a fun activity. The researchers suggested that the students become more aware over time of the benefits of the theatre technologies as a planning activity, and more adept at using them to their own advantage in the writing. This is borne out by the results of the study, which indicate a steady improvement in the quality of writing produced from the third week on.

In the course of the eight weeks, the researchers followed a control group of three students--one from each core group. The Player (Otis Williams) was reluctant to begin writing, although his work at NOCCA since his arrival had demonstrated clear-cut originality. His early writing in the module was coming from a self-imposed "male" demeanor of cynical non-participation:

> I wouldn't go back in time. I don't feel
> it would help mankind, but hinder him....If
> I brought back anything, it would be the Bible.
> But that would be useless....[26]

By virtue of a steady synthesizing of his thoughts, however, Otis reflected on male values. At one point in the study, he spoke to one of the researchers on the unfortunate predicament of only male values as essential for an industrial system to work, of how difficult they were to operationalize. To the researchers, Otis deduced that women and minorities perform the services that make life comfortable and create the atmosphere in which the competitors can flourish.

The researchers noted Otis's shift. In the third week, one of his writing pieces was read aloud by the researchers. The practice of the study was to acknowledge each week the writing that could not be denied. In the sessions following the public reading of his writing, this Player then began to respond to the technologies as an integrated whole, a total gestalt, from which he could receive rather than sitting on Mt. Olympus, reducing the theatre games to the sum of its parts, which

is what his early writing was communicating. His later writing, especially in the post-test, dealt with the living world of which he was now a part and on which his life depended. He began to treat his mind/body as a whole system.

An Oscillator--Tammy McCormick--would transcend her core group and by the conclusion of the study joined the ranks of the Players. Her early writing was giddy and playful, but she had difficulty developing her ideas and appeared to find the writing task a chore. Still, Tammy was keen to express herself in the technologies. But because of an undercurrent of benign indifference, she could not transfer her independence into a substantially developed writing piece. At the fourth Lesson, however, she began to appreciate the researchers' focus on the student as an individual and she was therefore provoked to write about her trip back in time:

> If I could go back in time and visit Eve of the Garden of Eden, I would tell her that her nakedness is beauty through the eyes of God, and that embarrassment of it would break his heavenly heart. I would hunt down the serpent on a fire-hungry rampage. Tear through the brushes and wring his neck around and around and around and fling it toward the sun.[28]

She became the central figure--chosen at random to play the lead role in an important exercise-- of the last Lesson on Ritual. She was moved to embrace the broad ecological framework. This Lesson, in particular, responded to the synthesis of male/female by stressing the ritual of entropic work, i.e., work that must be done by either sex . The tangible effort of such work, however, is easily destroyed and entropy, or disorder, increases again. Therefore, our would-be Player became involved in exercises that stressed the doing of work that needed to be done over and over again, helping her to recognize, albeit unconsciously, the natural order of growth and decay, of birth and death. In the ritual dance, moreover, our student became aware of how she was embedded within a cycle, in the dynamic order of the cosmos. Her next two pieces of writing, including a careful use of The Paradigm as applied to the film SOUNDER (1972), demonstrated not only an acceptance of eco-feminism, but a new-found intellectual rigor and clarity of expression. Finally, in this concluding Lesson, Tammy's written response to the presentation of the Japanese Noh play THE

DAMASK DRUM by Seami (1492) was richly endowed:

> Non-Western plays are mystic and fantastic
> (of a fantasy). The music is a major part of the production,
> which...is visible on-stage.These types of plays have choruses,
> which help the actors to speak and express their feelings...
> the beauty is derived from...exotic masks
> and enchanting costumes, adding flavor
> and sacredness. The entire performance
> emits mystique, which infuses the outsider
> and thus protects its originality from
> violation or encroachment.[29]

The researchers focused on Kelly McCay as representative of the Spectators. As with all five of this core group, Kelly found the theatre technologies, at the beginning of the module, to be threatening. Therefore, the writing generated was locked into linear modes:

> At the end of Henry's funeral only two souls remain.
> That is of Anne and Richard. Richard's love overpowers
> him and Anne wants no part with him....The sorrow for Anne
> was overbearing when having to deal with Richard. She
> wanted to kill him and yet she did not want to be his executioner.[30]

The theatre technologies seemed to provide some emotional security for Kelly's confidence grew and helped her, as it did all the Spectators, to participate in the individually-oriented spontaneous exercises.

The happy changeovers of Otis and Tammy, among others, represented to the researchers the most powerful epiphany in the study: overcoming the delusion of the omnipotence of the teacher. The process of teacher/student becomes exciting when they become locked in a collective dance. Both of these aforementioned students are black and essentially were mistrustful of being absorbed into a white aesthetic. They seemed to have a hidden agenda that communicated, "I am not going to write up to my potential, because I don't want to be a number in your statistics of success." At one point in an early process, one of these students forcibly shoved the researcher, conveying mistrust and attempting to invalidate the researcher's "power.The researchers, of course, were committed to creating, after Laing, "authentic meetings," and so we maneuvered him into testing his strength with ours. He saw that we were not necessarily sustaining a combatant

stance. Indeed, we were "caressing" him with the challenges of essentializing ecology, female thinking and spirituality. Summarily, he eventually "gave" his power away and reaped the benefits of a you-and-me context, as opposed to a you-or-me contest.

In this collective dance, the student gains responsibility. It is his process that is being extolled. He embraces a new kind of accountability. For the teacher, moreover, to help create this process, he/she has to guide the student through the "back door," so to speak, instead of the "front door." In other words, the researchers were impelled to learn each student's way of thinking, their epistemological bias, as it were, so that we could assist them in making an entry-point into their own potential expression. For example, when the researchers communicated with the group "clearly," the better they "understood," the less the writing became subjective. Therefore, the communication between us was best when we were on the metaphorical level, the search for shared knowledge. In a sense, this kind of shared knowledge cannot be quantified. These metaphors don't show up in the stats and in a way they don't have to. This is the space that has been unknowingly created by the researchers for other teachers who may wish to employ this module in their respective classrooms.

As such, the researchers advise those who may use this study to seek out non-ordinary realms of experience manifested in a continuum of technologies. Then, "come back," so to speak, and integrate these new-found realms with everyday reality, which becomes the oral/written expression. Students then learn to function as superior in both non-ordinary and everyday realms.

The second major awakening for the researchers was an appreciation of the profound integration of mind/body, thus demolishing for us the Cartesian split so often ingested in American education. "Johnny, go and write a 400 page paper on democracy," says the teacher. Johnny then indulges in an act of isolation and his subjective knowledge is not highly valued. Johnny responds to the Cartesian imagery of the body as a machine. Such imagery is useful, but only within a larger quantum-relativistic framework.

In preparing the technologies for bringing the mind/body into alliance, the researchers found inspiration in the Chinese concept of ch'i which describes the total pattern of mind/body as multiple processes of fluctuation. Of particular impact was Fritjof Capra's interpretation of ch'i from his THE TAO OF

PHYSICS:
Ch'i is not a substance, nor does it have the purely quantitative meaning of our scientific concept of energy. It is used in Chinese medicine in a very subtle way to describe the various patterns of flow and fluctuation in the human organism, as well as the continual exchanges between organism and environment. Ch'i does not refer to the flow of any particular substance but rather seems to represent the principle of flow as such, which, in the Chinese view, is always cyclical.[31]

The researchers used ch'i to systematize the technologies, in that we sought to create movement exercises that addressed a set of functional bodily relations as opposed to an isolated physical part of the body. The students responded as conduits having relative intensities which transmitted patterns. The qualitative aspect of ch'i lies in its directionality. Quality now becomes a complement to quantity. Quality, in this sense, corresponds to a defined, or definable, directionality, the direction of movement.

The researchers were dealing with two aspects of reality: mass, which is static and fixed, which has extension and is accumulated; and movement, which is dynamic and has no extension. Quality, for the researchers, then, refers to movement, to processes, to functions, or to change. As such, the use of ch'i became, for the researchers and the student, a dance of two minds in search of understanding. We sought to convey this dynamic to our students and we were often met with movement of great intentionality, precision and beauty.

Throughout the entire module, the researchers rested our concepts in the purpose of cross-cultural comparsions not so much to employ other systems ipso facto for our culture, but rather as mirrors so that we could recognize the advantages and shortcomings of our own approach.

The findings of this study provide empirical support for theatre technologies as planning processes involved in writing and for theories related to symbolic functioning in general. First, as it involves a product in itself, the theatre technologies allow for the expectoration and possible integration of ideas before the writing begins. This makes the use of such strategies a more complete form of rehearsal for writing rather than discussion. Then, too, the use of themes in which the activities can revolve around suggest that higher quality writing results from integrated writing goals, and that is important for students "...to assimilate recurs composing strategies."[32]

Second, the results are consistent with the hypothesis that different media can have an effect upon the way we process information in writing. According to dual code information processing theories (Paivio 1979),[33] nonverbal modes of representation have the potential to enhance creativity during the early stages of composition by increasing speed, flexibility and depth of processing, prior to the subsequent organization and stabilization of ideas through language. The theatre technologies used in this study have close ties with the visual and kinesthetic imagery involved in creative writing that seeks metaphor, and thus provides a better union between forms of thought and forms of expression.

Third, the results point to the possibility of mutual interaction among forms of representation which mature at different rates. In keeping with emergent literary studies (Harste, Woodward, and Burke[34] 1984) which identify theatre as a developmental precursor of writing, this study suggests that theatre technologies have the potential to provide a continuing context for writing beyond elementary school, and that writing may be enriched by the distinctiveness of the technologies. As a personal symbol system, the theatre technologies may also provoke a confident and prolific flow of ideas.

Finally, the findings of this study support theories relating to the structural differences symbol systems (Owen 1986,[35] Sinatra 1986,[36] Gardner 1981,[37]). The use of the theatre technologies allows young writers to explore in several directions without linear constraints, to shape ideas into a more fully conceived whole and then to revise them in relation to a whole. Theatre games and processes provide meaning instantaneously, condensing the gathering of information processing, keeping the demands of writing allied with the flow of ideas. Also, Syd Field's Paradigm has the potential to act as a simple, effective strategy for increasing the students' motivation to write about a theatrical event.

The presentation of these results to other teacher-researchers who put their faith in statistics may be significant in that the inter- penetrating relationship between these students and these researchers is what this study may be all about. Who we are and who they are significant elements in this adventure. However, uppermost in the minds of the researchers was to make systematic observations and report these observations aright, so that we may all scoop out abundance. Perhaps a plan may have been discovered, a blueprint which not

only exposes the limitations of ordinary language, but heightens the role of metaphor and the importance of intuitive, nonrational methods in uncovering paradox. Qualitative evidence further suggests that the use of theatre technologies may increase students' motivation to write and promote the generation of ideas for writing.

Pre-Test/Post-Test

The Paradigm was introduced in the pre-test with a "live" scene from Shakespeare's RICHARD III and the Charlie Chaplin short film THE IMMIGRANT (1914) and subsequently was re-inforced throughout the duration of the study, creating an impact on the students. Its terms--plot point I, plot point 2, beginning/ending, and midpoint--became second nature to the students, so that when the study was completed with the film KOYAANQUATSI, the students had grasped not only the tool but how to use it creatively.

In the scene from RICHARD III, only three students identified the first plot point, only two the second. A majority grasped the beginning and ending, but no one was able to seize the midpoint. In the second Lesson on Mystery, only a small handful were able to focus the five terms on the complex scene from ANGEL STREET. During the sixth week, when the students had begun to ingest the Paradigm as a critical tool, the papers on Martin Ritt's film of SOUNDER (1972) reveal depth and some resonance. Throughout the study, however, the students finally perceived that explicit attention to the points in the narrative would yield identity of the terms and then they could be playfully juggled in ratios to reveal structure. The use of this tool contributed to their knowledge and comprehension of the dramatic event as evidenced in the post-test papers, some of which are remarkably sophisticated.

Ray Vrazel

One important aspect of the program for me was the artistic and professional partnership that developed between Henry Hoffman and myself. It was very exciting and inspiring to come to know the work of another teacher through first hand experience. Mutual respect was already present, but the trust and knowledge of teaching/artistic skills can only be born of actual experience. This

trust and knowledge was certainly fostered by this program. Using drama training exercises as a means to activate creativity is a given. However, the turning of creative dramatics exercises toward academic activities while preserving their integrity and the integrity of the art is not a given. This is especially true when the academic activity is writing. There are many variables in all phases of such an undertaking, not the least of which is planning. While I provided feedback and supplemental exercises and ideas, Henry conceived of the overall form of the sessions to be conducted. In this we complemented each other --Henry's thorough preplanning and my own insight and observations on that work--achieving a quick and easy consensus for each session.

What further distinguished this work from other programs of creative dramatics in the classroom was the participation of the session leaders in each other's activities and exercises. We were both players with the participants and, as such, pushed the creative activities into the realm of a true ensemble experience. This in itself contributed to the gains in writing as much as any one thing. As leader/players, we contributed so much more to the overall experience than if we were merely teachers directing and lecturing, sitting and watching. Under these circumstances, side by side with their teachers, the players wholeheartedly and courageously embraced the challenges of creative exploration This feeling of equality with the teachers was enhanced by the realization that there was no right or wrong solution to any given problem. The natural outcome of an experience such as this was and must be obvious to all. For my part, being a player in Henry's exercises freed me to have an experience similar to that which I, in turn, wanted the players to have in those exercises which I led. These keen and immediate experiences infused my own exercises with new meaning and possibilities.

Expectations, therefore, became very high--not because we set them high, but because the group accepted that responsibility. The writing became a collective experience--to be shared. And the group as a whole was eager and excited about their ideas. Any learning that did occur, occurred under these circumstances. The energy and inspiration that was shared in the exercises was then shared again through writing. Technical problems in writing composition became just that, and did not overshadow or in any way prohibit the expression of newly generated thoughts and ideas. The act of having an idea/thought/inspiration often took no

notice of proper grammar and syntax. However, this, I believe, afforded the opportunity for a positive acknowledgment of mistakes which in turn provoked a voluntary learning process. Thus, real writing skills were being formed.

Future Research

The Players were aware of themselves both culturally and biologically. Their oral/written communication skills represented a synchronicity between the two. They were challenged and they tested their capabilities. Their writing and response to the technologies were evolutive. The Oscillators wrote idiosyncratically, but often fought to get beyond rudimentary descriptive into the depictive, the sharing of experience. The Spectators, on the other hand, were caught in an evolutionary cul-de-sac. They could not, after experiencing the technologies, move into the necessary introspection in order to handle the writing. The researchers ran out of time to study more accurately the particularity of their patterns of evolution. We did not have time to isolate their shortcomings nor unlock the connection between their social fabric and their poverty of self -organizing principles. The researchers therefore formed the perception that problems would arise in whatever environment these individuals were placed. This perception is incomplete, however, because it does not fully examine the complementary interaction between the student's environment and his/her latent components. Herein lies the need for further research.

This study was essentially qualitative, aiming more at the generation of hypotheses which could be subjected to further investigation rather than at the quantification of previously generated hypotheses. However, the large absolute number of positive responses from the parents' survey and the quality work of the group of students were taken by the researchers that, in the absence of contradictory evidence, the recommendations of the present study could be used as the basis for creating new instructional units and for evaluating courses in writing which already exist.

NOTES & BIBLIOGRAPHY

BIBLIOGRAPHY

Baker, Paul. INTEGRATION OF ABILITIES. (Dallas: Trinity Press, 1972).

Ball, William. A SENSE OF DIRECTION. (Los Altos, California: Wadsworth Press, 1984)

Bateson, Gregory. STEPS TO AN ECOLOGY OF MIND. (New York: Ballantine, 1972).

Bolton, Gavin. TOWARDS A THEORY OF DRAMA IN EDUCATION (London: Longsman,1979).

Booth, David. DRAMA IN THE FORMATIVE YEARS. (Toronto: Ministry of Education for Ontario, 1984).

_____. GAMES FOR EVERYONE. (Markham, Ontario: Pembroke Publishers, 1986).

Boyer, Ernest. THE PURSUIT OF EDUCATION. (Holt Rinehart and Winston, 1986)

Capra, Fritjof. THE TAO OF PHYSICS. New York: (Bantam New Age Books, 1986).

Castaneda, Carlos. THE TEACHINGS OF DON JUAN. (New York: Ballantine, 1968).

Cleaver, Eldridge. SOUL ON ICE. (New York: Dell, 1968).

Ehrenreich, Barbara, and Deirdre English. FOR HER OWN GOOD. (New York: Doubleday, 1978).

Eisner, E.W. "The Role of Arts in Cognition and Curriculum." Phi Delta Kappan (63.1: pp. 48-52)

Field, Syd. SCREENPLAY. (Dell, 1984).

Flower, L. and J.R. Hayes "The Cognition of Discovery: Defining A Rhetorical Problem." College Composition and Communication, pp. 21-32).

Gardner, H. ART, MIND AND BRAIN (New York: Basic Books, 1981).

Goldberg, P.D. "Development of a Category System for the Analysis of the Response of the Young Theatre Audience." The Children' s Theatre Review (32.2: pp. 27-32)

Gozemba, P.A. "The Effect of Rhetorical Training in Visual Literacy on the Writing Skills of College Freshmen." DAI 36: 1269A (Boston University, 1975).

Grof, Stanislav. REALMS OF HUMAN UNCONSCIOUS. (New York: Dutton, 1976).

Harste, J., Woodward V., and Burke C. LANGUAGE STORIES AND LITERACY LESSONS. (New Hampshire: Heinneman, 1984).

Henderson, Hazel. CREATING ALTERNATIVE FUTURES. (New York: Putnam, 1962).

Heathcote, Dorothy. EXPLORING THEATRE AND EDUCATION. (London: Heinneman, 1980).

Hoetker, J. "Students as Audiences: An Experimental Study of the Relationship between Classroom Study of Drama and Attendance at the Theatre." (National Council of Teachers of English, 1971).

Hudgins, N.L. "Imagery: Its Relationship to Children's Written Composition." DAI 45: 1285A (University of Virginia, 1983).

Jantsch, Erich. THE SELF-ORGANIZING UNIVERSE. (New York: Pergamon, 1980).

Jung, Carl Gustav. "On Psychic Energy," in Herbert Read, Michael Fordham and Gerhard Adler, eds., THE COLLECTED WORKS OF CARL G. JUNG, vol. 8 Princeton: Princeton University Press (1928).

Laing, R.D. THE POLITICS OF EXPERIENCE. (New York: Ballantine, 1968).

_____.THE VOICE OF EXPERIENCE. (New York: Pantheon, 1982).

Lock, Margaret. EAST ASIAN MEDICINE IN URBAN JAPAN. (Berkeley: University of California Press, 1980).

Mahoney, M. "Hemispheric Dominance and Imagistic Writing." DAI 42: 2999A (Iowa State University, 1982).

Owen, C.L. "Technology, Literacy and Graphic Systems." TOWARD A NEW UNDERSTANDING OF LITERACY, ed. by M.E. Wrolstad and D.F. Fisher (New York: Praeger, 1986).

Paivio, A. IMAGERY AND VERBAL PROCESSES. (New York: Holt, Rinehart and Winston, 1979).

Rich, Adrienne. OF WOMAN BORN. (New York: Norton, 1977).

Schumacher, E.F. SMALL IS BEAUTIFUL. (New York: Harper & Row, 1975).

Sintra, R. VISUAL LITERACY: CONNECTIONS TO THINKING, READING AND WRITING. (Illinois: Charles C. Thomas, 1986).

Sloman, C.L. "Micro-Momentary Facial Expressions and the Actor: An Investigation." Empirical Research in Theatre (2.1: pp. 52-60).

Spolin, Viola. THEATRE GAMES FOR THE CLASSROOM: A TEACHER'S HANDBOOK. (Evanston: Northwestern University Press, 1968).

Way, Brian. DEVELOPMENT THROUGH DRAMA. (London: Longman, 1967).

Wilber, Ken. THE SPECTRUM OF CONSCIOUSNESS. (Wheaton, Illinois: Theosophical Publishing House, 1977).

NOTES

1. Ernest Boyer. THE PURSUIT OF EDUCATION (Holt, Rinehart and Winston, 1986), p. 56.

2. Dorothy Heathcote. EXPLORING THEATRE AND EDUCATION, (London:Heinneman, 1980), p. 6.

3. Syd Field. SCREENPLAY (Dell, 1984).

4. J. Hoetker. "Students as Audiences: An Experimental Study of the Relationship Between Classroom Study of Drama and Attendance at the Theatre." National Council of Teachers of English, Champaign, Illinois, 1971.

5. C.L. Sloman. "Micro-Momentary Facial Expressions and the Actor: An Investigation." Empirical Research in Theatre, (2.1: pp 52-60).

6. P. D. Goldberg. "Development of a Category System for the Analysis ofthe Response of the Young Theatre Audience." TheChildren's Theatre Review (32.2: pp. 27-32).

7. Viola Spolin. THEATRE GAMES FOR THE CLASSROOM: A TEACHER'S HANDBOOK. (Evanston: Northwestern University,1968), p. xix.

8. Fritjof Capra. THE TAO OF PHYSICS. (New York: Bantam New Age Books, 1986).

9. Paul Baker. INTEGRATION OF ABILITIES. (Dallas: Trinity University Press, 1972).

10. R.D. Laing. THE POLITICS OF EXPERIENCE. (New York: Ballantine, 1968).

11. Ibid., pp. 50-51.

12. Stanislav Grof. REALMS OF HUMAN UNCONSCIOUS. (New York: Dutton, 1976).

13. Gregory Bateson. STEPS TO AN ECOLOGY OF MIND. (New York: Ballantine, 1972), p. 112.

14. N.L. Hudgins. "Imagery: Its Relationship to Children's Written Composition." DAI 45: 1285A (University of Virginia, 1983).

15. M. Mahoney. "Hemispheric Dominance and Imagaic Writing," DAI 42: 2999A (Iowa State University, 1982).

16. P.A. Gozemba. "The effect of Rhetorical Training in Visual Literacy on the Writing Skills of College Freshmen," DAI 36: 1269A (Boston University, 1975).

17. H. Gardner. ART, MIND AND BRAIN. (New York: Basic Books,1981), p. 89.

18. E.W. Eisner. "The Role of the Arts in Cognition and Curriculum,"Phi Delta Kappan (63.1: pp. 48-49).

19. Bateson, p. 66.

20. Albert Walker, p.

21. Nicole Tournillon, p.

22. Elizabeth Young, p.

23. Alicia Kaigler, p.

24. Young, op. cit., p.

25. Mary McConkey, p.

26. Otis Williams, p.

27. Ibid., p.

28. Tammy McCormick, p.

29. Ibid., p.

30. Kelly McCay, p.

31. Capra, p. 43.

32. L. Flower and J.R. Hayes. "The Cognition of Discovery: Defining A Rhetorical Problem." College Composition and Communication (31), p. 27.

33. A. Paivio. IMAGERY AND VERBAL PROCESSES. (New York: Holt, Rinehart and Winston, 1979).

34. J. Harste, V. Woodward and C. Burke. LANGUAGE STORIES AND LITERACY LESSONS. (New Hampshire: Heinneman, 1984).

35. C.L. Owen. "Technology, Literary and Graphic Systems," TOWARD A NEW UNDERSTANDING OF LITERACY, Ed. by M.E. Wrolstadand D.F. Fisher (New York: Praeger, 1986).

36. R. Sintra. VISUAL LITERACY: CONNECTIONS TO THINKING, READING AND WRITING (Illinois: Charles C. Thomas, 1986).

37. Gardner.